Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Withdrawn) A wireless network node for providing transit of data with other wireless network nodes in a wireless network, the wireless network node comprising:

at least one transit antenna to provide data transmission between at least one other wireless network node in the wireless network and the wireless network node;

an auxiliary transit antenna having a greater gain than the at least one transit antenna to provide at least one of:

a) data transmission between wireless network nodes separated by a distance greater than that permitting reliable data transmission to other wireless network nodes using the at least one transit antenna; and

b) higher rate transmission between wireless network nodes than can be achieved using the at least one transit antenna.

2. (Withdrawn) The wireless network node of claim 1 further comprising at least one access antenna to permit data transmission both to and from wireless mobile terminals located proximate the wireless network node.

3. (Withdrawn) The wireless network node of claim 2, wherein the at least one transit antenna and the at least one access antenna are operable in separate radio bands.

4. (Withdrawn) The wireless network node of claim 3, wherein the auxiliary transit antenna is operable in the same radio band as the at least one transit antenna.

5. (Withdrawn) The wireless network node of claim 3, wherein the auxiliary transit antenna is operable in a different radio band than the at least one transit antenna.

6. (Withdrawn) The wireless network node of claim 1 further comprising a transit link radio coupled to the at least one transit antenna and the auxiliary transit antenna for providing data communication between the wireless network node and other wireless network nodes.

7. (Withdrawn) The wireless network node of claim 2 further comprising:

a transit link radio coupled to the at least one transit antenna and the auxiliary transit antenna for providing data communication between the wireless network node and other wireless network nodes;

an access link radio coupled to the at least one access antenna for providing communication between the wireless network node and mobile devices proximate the wireless network node; and

a controller unit coupled to both the transit link radio and the access link radio for coupling data transmissions from a mobile device proximate the wireless network node to other wireless network nodes.

8. (Withdrawn) The wireless network node of claim 1, wherein the auxiliary transit antenna is aimed so signals therefrom are transmitted to another specific wireless network node.

9. (Withdrawn) The wireless network node of claim 8, wherein the another specific wireless network node is located at a distance from the wireless network node greater than a distance permitting reliable transmission of data using the at least one transit antenna.

10. (Currently amended) A wireless network node for providing transit of data with other wireless network nodes in a wireless network, the wireless network node comprising:

at least one transit antenna to provide data transmission between at least one other wireless network node in the wireless network and the wireless network node;

an auxiliary transit antenna port to which an auxiliary transit antenna can be coupled; and an antenna detector adapted to detect whether or not an auxiliary transit antenna is coupled to the auxiliary transit antenna port;

wherein upon detection that the auxiliary transit antenna is or is not coupled to the auxiliary transit antenna port, the wireless network node is adapted to include or not include the auxiliary transit antenna port as an option for communications.

11. (Currently amended) The wireless network node of claim 10 wherein the antenna detector is adapted to automatically detect whether or not an auxiliary transit antenna is coupled to the auxiliary transit antenna port.

12. (Currently amended) The wireless network node of claim 11, wherein the antenna detector measures a standing wave ratio (SWR) for use in a determination of whether or not an auxiliary transit antenna is or is not coupled to the auxiliary transit antenna port.

13. (Currently amended) The wireless network node of claim 11, wherein the antenna detector measures a signal received through the auxiliary transit antenna port for use in a determination of whether or not an auxiliary transit antenna is or is not coupled to the auxiliary transit antenna port.

14. (Currently amended) The wireless network node of claim 11, wherein the antenna detector comprises a metal contact that rests adjacent to the auxiliary transit antenna port when an auxiliary transit antenna is not inserted into the auxiliary transit antenna port, and when an auxiliary transit antenna is inserted into the auxiliary transit antenna port the metal contact is bridged to a ground contact of the auxiliary transit antenna port, the antenna detector further comprising an interface circuit to which the metal contact is coupled, the interface circuit outputting a signal that is indicative of the presence or absence of an auxiliary transit antenna in the auxiliary transit antenna port.

15. (Currently amended) The wireless network node of claim 11, wherein the antenna detector comprises a coupler connected in series with the auxiliary transit antenna port, forward

and reverse power detectors connected to the coupler, and a Standing Wave Ratio (SWR) detector and interface circuit connected to the forward and reverse power detectors,

wherein in operation power from the auxiliary transit antenna port is coupled through the coupler and measured by both the forward and reverse power detectors, and the SWR detector and interface circuit compare outputs of the forward and reverse power detectors in order to determine whether or not an auxiliary transit antenna is coupled to the auxiliary transit antenna port.

16. (Currently amended) The wireless network node of claim 10 in combination with an auxiliary transit antenna coupled to the auxiliary transit antenna port.

17. (Original) The wireless network node of claim 16, further comprising at least one access antenna to permit data transmission both to and from wireless mobile terminals located proximate the wireless network node.

18. (Original) The wireless network node of claim 17, further comprising:

a transit link radio coupled to the at least one transit antenna and the auxiliary transit antenna for providing data communication between the wireless network node and other wireless network nodes;

an access link radio coupled to the at least one access antenna for providing communication between the wireless network node and mobile devices proximate the wireless network node; and

a controller unit coupled to both the transit link radio and the access link radio for coupling data transmissions from a mobile device proximate the wireless network node to other wireless network nodes.

19. (Currently amended) The wireless network node of claim 16, wherein the auxiliary transit antenna is aimed so signals therefrom are transitted to another specific wireless network node.

20. (Original) The wireless network node of claim 19, wherein the another specific wireless network node is located at a distance from the wireless network node greater than a distance permitting reliable transmission of data using the at least one transit antenna.

21. (Currently amended) The wireless network node of claim 16, wherein the auxiliary transit antenna has a gain greater than that of the at least one transit antenna.

22. (Currently amended) The wireless network node of claim 16 further comprising a directional-mount connected between the auxiliary transit antenna and auxiliary transit antenna port of the wireless network node.

23. (Currently amended) The wireless network node of claim 22, wherein the directional-mount is adjustable in order to permit an optimal alignment of the auxiliary transit antenna.

24. (Currently amended) The wireless network node of claim 16, wherein the auxiliary transit antenna provides the use of a substantially higher data rate than that provided by the at least one transit antenna.

25. (Currently amended) The wireless network node of claim 16, wherein the auxiliary transit antenna provides substantially better interference suppression than that provides by the at least one transit antenna.

26. (Currently amended) A method of operating a wireless network node having an auxiliary transit antenna port, the method comprising:

determining whether or not an auxiliary transit antenna is coupled to the auxiliary transit antenna port; and

upon determining that an auxiliary transit antenna is coupled to the auxiliary transit antenna port, adding the auxiliary transit antenna to a list of active antennas adapted for at least one of transitting and receiving wireless signals so that the auxiliary transit antenna can be included or ignored as appropriate for at least one of transmitting and receiving wireless signals through the auxiliary transit antenna coupled to the auxiliary transit antenna port;

upon determining that an auxiliary transit antenna is not coupled to the auxiliary transit antenna port, ~~not using the auxiliary antenna port~~ removing the auxiliary transit antenna from a list of active antennas so that the auxiliary transit antenna will not be used.

27. (Currently amended) The method according to claim 26, further comprising, upon determining that an auxiliary transit antenna is coupled to the auxiliary transit antenna port, automatically aligning a beam of the auxiliary transit antenna with another wireless network node.

28. (Currently amended) The method according to claim 27, wherein the beam of the auxiliary transit antenna is aligned such that at least one of a strongest possible signal level is received and a lowest packet error rate is achieved on a resulting link.

29. (Currently amended) A controller for a wireless network node having an auxiliary transit antenna port, the controller having a function of:

determining whether or not an auxiliary transit antenna is coupled to the auxiliary transit antenna port;

upon determining that an auxiliary transit antenna is coupled to the auxiliary transit antenna port, adding the auxiliary transit antenna to a list of active antennas adapted for one of transmitting and receiving wireless signals so that the auxiliary transit antenna can be included or ignored as appropriate for one of transmitting and receiving wireless signals through the auxiliary transit antenna coupled to the auxiliary transit antenna port; and

upon determining that an auxiliary transit antenna is not coupled to the auxiliary transit antenna port, ~~not using the auxiliary antenna port as though it did not exist~~ removing the auxiliary transit antenna from a list of active antennas so that the auxiliary transit antenna will not be used.

30. (Currently amended) The controller of claim 29, further comprising a function of, upon determining that an auxiliary transit antenna is coupled to the auxiliary transit antenna port, coordinating an automatic alignment of a beam of the auxiliary transit antenna with another wireless network node.

31. (Currently amended) The controller of claim 30, wherein the beam of the auxiliary transit antenna is aligned such that at least one of a strongest possible signal level is received and a lowest packet error rate is achieved on a resulting link.

32. (Withdrawn) A wireless LAN network comprising in combination: a plurality of wireless network nodes, each wireless network node including at least one transit antenna, and at least one of the plurality of wireless network nodes additionally including an auxiliary antenna having greater gain than the at least one transit antenna also included on the wireless network node;

wherein a plurality of transit links is established between the transit antennas of the wireless network nodes;

at least one additional transit link is established between two wireless network nodes separated by a distance greater than reliably possible between two transit antennas, each additional transit link employing at least one auxiliary antenna.

33. (Withdrawn) The wireless LAN network of claim 32 further comprising at least one network access node for providing network access communication between the wireless LAN and another network consisting of at least one of an internet, an intranet, a Public Switched Telephone Network (PSTN) and another communication network.

34. (Withdrawn) The wireless LAN network of claim 32, wherein at least one of the wireless network nodes additionally including the auxiliary antenna has a wireless transport communication link to the network access node using its auxiliary antenna from a distance

greater than is reliably possible with its at least one transit antenna.

35. (Withdrawn) The wireless LAN network of claim 32, wherein at least one of the wireless network nodes further comprise an access link radio and at least one access antenna coupled to the access link radio;

whereby in operation these wireless network nodes are capable of providing wireless access to communication services to subscribers with suitable mobile devices.

36. (Withdrawn) The wireless LAN network of claim 32, wherein, for each of the wireless network nodes additionally including the auxiliary antenna, a data rate provided through use of the auxiliary antenna is higher than a data rate provided through the use of the at least one transit antenna.

37. (Withdrawn) The wireless LAN network of claim 32, wherein, for each of the wireless network nodes additionally including the auxiliary antenna, a data reliability provided through use of the auxiliary antenna is higher than a data reliability provided through the use of the at least one transit antenna.

38. (Withdrawn) The wireless LAN network of claim 32, wherein, for each of the wireless network nodes additionally including the auxiliary antenna, a level of interference suppression provided through use of the auxiliary antenna is higher than a level of interference suppression provided through the use of the at least one transit antenna.